



**Annual Progress Report of Academic Output
Clinical Research Study Program
Duke Clinical Research Institute**

Academic Year: August 2017 – July 2018

Kristin Corey – Duke Advanced Oncologic and GI Surgery

Mentor: Sandhya Deenadayalan-Lagoo, MD and Allen Kirk, MD, PhD

Program: Completed Clinical Research Study Program

Project Title:

- PROMISE: Perioperative Risk Optimization with Machine learning for an Improved Surgical Experience
- Pythia: Open Science Data Platform for Research, Innovation, and Quality Improvement

Scholarship: DIHI Scholarship

Awards: Second Place at DCRI's Clinical Research Day - May 2018

Publications:

Submitted:

Kansal A; Gao M, Nichols M, Kashyap S; **Corey K**, Balu S, Sendak M. Methods for Incorporating Diagnosis Codes as Features in Predictive Tasks. Submitted to PLoS ONE (under review).

Corey KM, Kashyap S, Lorenzi E, Lagoo-Deenadayalan S, Heller K, Whalen K, Balu S, Heflin M, McDonald S, Swaminathan M, Sendak M. PYTHIA: EHR Data Driven Machine Learning to Identify High-Risk Surgical Patients. Submitted June 2018, PLoS Medicine. (under review)

Presentations/Abstracts:

Corey KM, Kashyap S, Lorenzi E, Lagoo-Deenadayalan S, Heller K, Whalen K, Balu S, Heflin M, McDonald S, Swaminathan M, Sendak M. PYTHIA: Automated Surgical Outcomes Data Pipeline and Prediction Engine. Presented at Machine Learning for Healthcare. Machine Learning for Health Care Annual Meeting, August 2018, Palto Alto, CA

Matthew Gold – Duke Cardiology

Mentor(s): Ann Marie Navar, MD

Program: Completed Clinical Research Study Program

Project Title: PCSK9 Inhibitors and PBM Approvals

Presentations/Abstracts:

Gold M, Schibler T, Wojdyla D, Hoffman P, Navar AM. Lipid Trajectory and Predictors of Correct Management of Patients with High LDL. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC

James Helzberg – Duke Gastroenterology

Mentor(s): Andrew Muir, MD, MHS

Program: Completed Clinical Research Study Program

Project Title: National trends in hospitalizations for chronic liver disease from 2005 to 2014

Medical School Contributions: Student Faculty for Clinical Skills Course, Student Faculty for Clinical Skills Foundations II course, served on Duke Clinical Research Undergraduate Experience Panel

Publications:

Submitted:

Helzberg JH, Parish A, Niedzwiecki D, Henson JB, Patel YA, Wilder JM, Kappus MR, Muir AJ. National trends in hospitalizations for chronic liver disease from 2005 to 2014.

Presentations/Abstracts:

Helzberg JH, Parish A, Niedzwiecki D, Kim CY, Wilder JM, Muir AJ (2018). TIPS outcomes according to race and ethnicity. Poster Presented at American College of Gastroenterology Annual Scientific Meeting, Philadelphia, PA, Oct 8, 2018.

Muir AJ, Yao J, Wilder JM, Makarushka C, Keefe K, **Helzberg JH**, Mannelli P, Evon DM, Niedzwiecki D, Naggie S, Fried MW, Proeschold-Bell RJ. The Alcohol Use Disorders Identification Test Screening in Patients with Hepatitis C. Poster Presentation at the American Association for the Study of Liver Disease Annual Meeting 2018. San Francisco, CA, Nov 11, 2018.

Helzberg JH, Parish A, Niedzwiecki D, Henson JB, Patel YA, Wilder JM, Kappus MR, Muir AJ (2018). National Trends in Hospitalizations for Chronic Liver Disease from 2005-2014. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC

Helzberg JH, Parish A, Niedzwiecki D, Henson JB, Patel YA, Wilder JM, Kappus MR, Muir AJ (2018). National inpatient trends in chronic liver disease: A decade long analysis. Duke GI Research Symposium. Poster. May 24, 2018.

Aman Kansal – Duke Cardiology

Mentor(s): Schuyler Jones, MD

Program: Completed Clinical Research Training Program

Project Title:

- Impact of Procedural Bleeding in Peripheral Artery Disease: Results from the EUCLID Trial

- Methods for Incorporating Diagnosis Codes as Features in Predictive Tasks

Scholarship: DIHI Scholarship Publications:

Publications:

Submitted:

Kansal A; Gao M, Nichols M, Kashyap S; Corey K, Balu S, Sendak M. Methods for Incorporating Diagnosis Codes as Features in Predictive Tasks. Submitted to PLOS ONE (under review).

In Progress:

Kansal A, Huang Z, Rockhold FW, Baumgartner I, Berger JS, Blomster, Fowkes FG, Katona B, Mahaffey KW, Norgren L, Mehta R, Povsic TJ, Vemulapalli S, Hiatt WR, Patel MR, Jones WS, MD. Post-procedural Bleeding in Patients with Peripheral Artery Disease: Insight from the EUCLID Trial. To be submitted for publication in September 2018.

Kansal A, WS Jones. Review of Endovascular Treatment for Femoropopliteal Disease. To be submitted for publication in September 2018.

Lippmann SJ, Smerk MM, Shah K, Ward R, **Kansal A,** Brock A, Sullivan R, Long C, Vemulapalli S, Patel MR, Greiner MA, Hardy C, Curtis LH, Jones WS. Model-based Algorithms for Detecting Peripheral Artery Disease using Administrative Data from an Electronic Health Record Data System To be submitted for publication in 2018.

Presentations/Abstracts:

Kansal A, Huang Z, Rockhold FW, Baumgartner I, Berger JS, Blomster J, Fowkes FG, Katona B, Mahaffey KW, Norgren L, Hiatt WR, Patel MR, Jones WS. Impact of Procedural Bleeding in Peripheral Artery Disease. Insight from the EUCLID Trial. . Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC

Kansal A; Gao M, Nichols M, Kashyap S; Corey K, Balu S, Sendak M. Methods for Incorporating Diagnosis Codes as Features in Predictive Tasks. Duke Clinical Research Day, May 17, 2018, Durham, NC.

Dayoung Ko – Duke Study Away Student

Mentor(s): Shari Lipner, MD, PhD

Program: Completed Clinical Research Study Program

Project Title: Retrospective Single-Center Study Evaluating Clinical and Dermoscopic Features of Longitudinal Melanonychia, ABCDEF Criteria, and Risk of Malignancy

Awards:

Best Patient-Oriented Poster Presentation Award at AOA Annual Scientific Research Symposium 2018: Retrospective Single-Center Study Evaluating Clinical and Dermoscopic Features of Longitudinal Melanonychia, ABCDEF Criteria, and Risk of Malignancy.

Publications:

Ko D, Lipner SR. A survey-based study on nail examinations at an American Academy of Dermatology free skin cancer screening. J Am Acad Dermatol 2018.pii:S0190-9622(18)32206-0. (Epub ahead of print)

Ko D, Lipner SR. Congenital Malalignment of the Great Toenail. J Cutan Med Surg, 22(3):326

Chelidze K, **Ko D**, Lipner S R. The Nail Hematoma Selfie. J Am Acad Dermatol 2018;78(6):e137-e138

Submitted:

Ko D, Lipner S R. Optimizing Topical Therapy for Onychomycosis: The Importance of Patient Education. Cutis.

Lipner SR, **Ko,D**, Husain S. Subungual Leiomyoma Presenting as Erythronychia: Case Report and Review of the Literature. Journal of Drugs and Dermatology.

Ko D, Oromendia, C, Scher RK, Lipner SR. Retrospective Single-Center Study Evaluating Clinical and Dermoscopic Features of Longitudinal Melanonychia, ABCDEF Criteria, and Risk of Malignancy. J Am Acad of Dermato.

Ko D, Lipner SR. Onychogryphosis: Case Report and Review of the Literature. Skin Appendage Disorders

Presentations/Abstracts:

Ko, D, Onychogryphosis: Case Report and Review of the Literature. E-poster at 2018 American Academy of Dermatology Conference in San Diego, CA.

Ko D, Oromendia C, Scher R, Lipner S. ABC Rule in Longitudinal Melanonychia: Retrospective Single-Center Study Evaluating Clinical and Dermoscopic Features and Risk of Malignancy. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC

Xin Yi “Nicola” Lew – Duke Community and Family Medicine - Singapore

Mentor(s): Mina Silberberg, MD

Program: Completed Clinical Research Study Program

Project Title: Rates and Predictors of Follow-up and Blood Pressure Control at a Federally Qualified Health Center in North Carolina.

Awards: Duke Community and Family Medicine Departmental Small Grants (DSG) Program for Research & Scholarship Award

Stephanie Lim – Duke OB/GYN

Mentor(s): Laura Havrilesky, MD

Program: Completed Clinical Research Study Program

Scholarship: Duke Ovarian Cancer Scholarship, Infectious Disease Society of Obstetrics and Gynecology Travel Scholar Award, Chancellor Service Fellowship

Project Title: Hysterectomy with Sentinel Lymph Node Biopsy in the Setting of a Pre-Operative Diagnosis of Endometrial Intraepithelial Neoplasia: A Cost-Effectiveness Analysis

Panels: DCRUE Medical Student Panel

Publications:

Accepted with Minor Revisions:

Lim SL, Moss HA, Davidson BA, Havrilesky LJ. Hysterectomy with Sentinel Lymph Node Biopsy in the Setting of a Pre-Operative Diagnosis of Endometrial Intraepithelial Neoplasia: A Cost-Effectiveness Analysis. *Gynecologic Oncology*

In Prep:

Lim SL, Havrilesky LJ, Cohn D, Secord AA. Cost-effectiveness of Hyperthermic Intraperitoneal Chemotherapy (HIPEC) at Interval Debulking of Epithelial Ovarian Cancer Following Neoadjuvant Chemotherapy.

Lim SL, Havrilesky LJ, Heine P, Dotters-Katz S. The Cost-Effectiveness of Ertapenem for the Treatment of Chorioamnionitis after Cesarean Section.

Lim SL, Puechl A, Broadwater G, Ehrisman J, Lorenzo A, Foote J, Chino J, Havrilesky LJ. Variability in Medicare Utilization and Payment among Gynecologic Oncologists.

Presentations/Abstracts:

Lim SL, Havrilesky LJ, Cohn D, Secord AA. Cost-effectiveness of Hyperthermic Intraperitoneal Chemotherapy (HIPEC) at Interval Debulking of Epithelial Ovarian Cancer Following Neoadjuvant Chemotherapy. The International Gynecologic Cancer Society Annual Meeting. 2018. Kyoto, Japan

Lim SL, Havrilesky LJ, Heine P, Dotters-Katz S. The Cost-Effectiveness of Ertapenem for the Treatment of Chorioamnionitis after Cesarean Section. The Infectious Disease Society of Obstetrics and Gynecology Annual Meeting 2018. Philadelphia, PA

Lim SL, Puechl A, Broadwater G, Ehrisman J, Lorenzo A, Foote J, Chino J, Havrilesky LJ. Variability in Medicare Utilization and Payment among Gynecologic Oncologists. The American Society of Clinical Oncology Annual Meeting 2018. Chicago, IL

Lim SL, Moss HA, Davidson BA, Havrilesky LJ. Hysterectomy with Sentinel Lymph Node Biopsy in the Setting of a Pre-Operative Diagnosis of Endometrial Intraepithelial Neoplasia: A Cost-Effectiveness Analysis. Cancer Control and Population Sciences 7th Annual Science Research Poster Fair 2018.

Anthony Lin – Duke Population Health Sciences

Mentor(s): Hayden Bosworth, MD, Cara O'Brien, MD, and Suresh Balu

Program: Completed Clinical Research Study Program

Project Title: Investigating the Clinical and Operational Impact of Sepsis Phenotype Selection

Scholarship: Duke Institute for Health Innovation Clinical Research and Innovation Scholarship

Honors and Awards:

- Alpha Omega Alpha Day Best Patient-Oriented Platform Presentation, 2018
- American Thoracic Society Student Scholar, 2018
- Robert M. Califf Clinical Research Travel Scholarship, 2018
- Society of Hospital Medicine Best of Research and Innovations Plenary Presentation, 2018
- Dean's Third Year Research Travel Award, 2018
- Learning Health System Training Program Scholar, 2017
- Feagin Leadership Scholar, 2017
- Duke Institute for Health Innovation Clinical Research and Innovation Scholarship, 2017

Medical School Committee Contributions: Committee for Curricular Innovation

Publications:

Accepted:

Bedoya A, Futoma J, Clement M, Brajer N, **Lin A**, Gao M, Sendak M, Heller K, O'Brien C. Deeply Personalized Sepsis Care: Using Deep Learning to Improve Early Detection of Sepsis. Critical Care Medicine 2018.

Submitted:

Lin A, Futoma J, Sendak M, Bedoya A, Gao M, Nichols M, Clement M, Balu S, O'Brien C, Heller K. Learning Optimal Sepsis Treatments with Bayesian Deep Reinforcement Learning. PLOS ONE, Special Edition: Machine Learning in Health and Biomedicine 2018.

Sendak M, Gao M, Nichols M, **Lin A**, Balu S. Machine Learning in Healthcare: A Critical Appraisal of Challenges and Opportunities. EGEMs: Journal for Electronic Health Data and Methods.

Up for Submission in <4 weeks:

Lin AL, Sendak M, Bedoya AD, Clement ME, Brajer N, Futoma J, Bosworth HB, Heller KA, O'Brien CL. Improving Sepsis Care: Aligning Phenotype Selection with Program Design. Journal of Hospital Medicine 2018.

Vasavda C, Kothari R, Malla AP, Tokhunts R, **Lin A**, Ji M, Xu R, Saavedra H, Snowman AM, Ricco C, Albacarys L, Sbodio JI, Sedlak TW, Paul BD, Snyder SH. Bilirubin Exerts Specific Neuroprotection by Physiologically Scavenging Superoxide. Nature Metabolism 2018.

Posters and Oral Presentations:

Lin A, Futoma J, Sendak M, Bedoya AD, Brajer N, Gao M, Nichols M, Clement ME, Bosworth H, Heller K, Balu S, O'Brien C. Deeply-Personalized Medicine: Bringing Deep Learning to Sepsis Care. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC (Platform Presentation)

Sendak M, Bedoya A, **Lin A**, Nichols M, Gao M, Revoir M, Yashar F, Brajer N, Balu S, Sarro D, Sandhu S, Futoma J, Heller K, Elish M, Gerado C, Anstrom K, Poon E, O'Brien C. Leveraging Deep Learning and Rapid Response Team Nurses to Improve Sepsis Management. Machine Learning for Healthcare 2018.

Lin A, Sendak M, Bedoya A, Clement M, Futoma J, Nichols M, Gao M, Heller K, O'Brien C. What is Sepsis: Investigating the Heterogeneity of Patient Populations Captured by Different Sepsis Definitions? American Thoracic Society 2018. San Diego, CA

Lin AL, Futoma J, Bedoya AD, Brajer N, Sendak M, Clement ME, Gao M, Nichols M, Heller KA, O'Brien CL. Deeply-Personalized Medicine: Bringing Deep Learning to Sepsis Care. Duke University Medical Center Clinical Research Day 2018.

Lin A, Futoma J, Sendak M, Bedoya A, Clement M, Gao M, Nichols M, Heller K, O'Brien C. Deeply-Personalized Medicine: Bringing Deep Learning to Sepsis Care. Society of Hospital Medicine 2018. Orlando, FL

Futoma J, **Lin A**, Sendak M, Bedoya A, Clement M, O'Brien C, Heller K. Learning to Treat Sepsis with Multi-Output Gaussian Process Deep Recurrent Q-Networks. Proceedings of Neural Information Processing Systems: Machine Learning for Health 2017. Long Beach, CA

Kelly McHugh – Duke Cardiology

Mentor(s): Adrian Hernandez, MD and Adam DeVore, MD

Program: Completed Clinical Research Study Program

Project Title:

- Engaging Patients throughout the Health System: A Landscape Analysis of Top Research Institutions and Cold Call Policies
- Heart Failure with Preserved Ejection Fraction with and without Diabetes Mellitus: Characteristics and Outcomes

Publications:

McHugh KR., DeVore AD, Mentz RJ, Edmonston D, Green JB, Hernandez AF. The Emerging Role of Novel Antihyperglycemic Drugs in the Treatment of Heart Failure and Diabetes: A Focus on Cardiorenal Outcomes. *Clinical Cardiology*. Accepted August 14, 2018. doi: 10.1002/clc.23054.

Submitted:

McHugh KR, Wu J, Matsouka RA, DeVore AD, Fonarow GC, Heidenreich PA, Yancy CW, Green JB, Altman NA, Hernandez AF. Heart Failure with Preserved Ejection Fraction with and without Diabetes Mellitus: Characteristics and Outcomes. *JACC*, May 2018.

In Preparation:

McHugh, KR, Swamy, GK, Hernandez, AF. Engaging Patients throughout the Health System: A Landscape Analysis of Top Research Institutions and Cold Call Policies.

Presentations/Abstracts:

McHugh KR, Wu J, Matsouka RA, DeVore AD, Fonarow GC, Heidenreich PA, Yancy CW, Green JB, Altman NA, Hernandez AF. Diabetes Predicts Worse In-Hospital and Post-Discharge Outcomes in Patients with Heart Failure with Preserved Ejection Fraction: Findings from the Get With the Guidelines Heart Failure Registry Poster presented at: Heart Failure Society of America 22nd Annual Scientific Meeting; 2018 Sept 15; Nashville, TN, USA.

McHugh KR, Wu J, Matsouka, RA, DeVore AD, Fonarow GC, Heidenreich PA, Yancy CW, Green JB, Altman NA, Hernandez AF. Characteristics and Outcomes of Patients with Heart Failure with Preserved Ejection Fraction with and without Diabetes. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC

McHugh KR, Swamy GK, Hernandez AF. Engaging Patients throughout the Health System: A Landscape Analysis of Top Research Institutions and Cold Call Policies. Poster Presented at: Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke 2018 Scientific Sessions; 2018 April 7; Arlington, VA.

Connor Moseley – Duke Health Policy

Mentor(s): Charlene Wong, MD, MSHP

Program: Completed Clinical Research Study Program

Project Title:

- Incentivizing Health Behaviors in Medicaid: A Program Landscape and Insights on Beneficiary Engagement and Evaluation
- US adolescent and young adult recreational, occupational, and transportation physical activity: Relationships with activity recommendation adherence and weight status

Other Coursework Completed:

Introduction to Healthcare Markets and Policy for Practitioners

Teaching Experience:

- Student Facilitator: Clinical Skills Course
- Student Facilitator: Clinical Skills Foundation, Year 2

Publications:

Submitted:

Vulimiri M, Saunders RS, Bleser WK, Madanay FL, **Moseley CA**, McGuire H, Ubel PA, McKethan A, McClellan M Wong CA. Incentivizing Health Behaviors in Medicaid: A Program Landscape and Insights on Beneficiary Engagement and Evaluation

Moseley CA, Skinner AC, Peterson ED, Perrin EM, Armstrong SC, Wong CA. US Adolescent and Young Adult Recreational, Occupational, and Transportation Physical Activity: Relationships with Activity Recommendation Adherence and Weight Status.

Presentations/Abstracts:

Moseley C, Vulimiri M, Saunders RS, Bleser WK, Madanay FL, McGuire H, Perrin EM, Armstrong SC, Ubel PA, McKethan A, McClellan M, Wong CA. Gift Cards for Well Checks: What Are Medicaid and Chip Programs Doing to Incentivize Healthy Behaviors in Children? Presented at Academy Health Annual Research Meeting in Seattle, WA. June 2018

Wong CA, Vulimiri M, Saunders RS, Bleser WK, Madanay FL, **Mosley CA**, McGuire H, Ubel PA, McKethan A, McClellan M. Medicaid Incentives to Encourage Healthy Behaviors: What Are Key Challenges and Best Practices for Implementation and Evaluation? Podium Session, Presented at Academy Health Annual Research Meeting, Seattle, WA. June 2018

Moseley CA, Vulimiri M, Saunders RS, Bleser WK, Madanay FL, McGuire H, Perrin E, Armstrong SC, Ubel PA, McKethan A, McClellan MB, Wong CA. Gift Cards for Well Checks: What are Medicaid and CHIP Programs Doing to Incentivize Child Health Behaviors? Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC (Platform Presentation)

Moseley CA, Skinner AC, Peterson ED, Perrin EM, Armstrong SC, Wong CA. US Adolescent and Young Adult Physical Activity domains: Recommendation and Weight Associations. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC

Moseley CA, Skinner AC, Peterson ED, Perrin EM, Armstrong SC, Wong CA. US Adolescent and Young Adult Physical Activity Domains: Recommendation and Weight Associations. Accepted for Poster Session: The Obesity Society Obesity Week 2018, Nashville, TN, November 2018

Kiyani Musa – Duke Neurology

Mentor(s): Nandan Lad, MD, PhD

Program: Completed Clinical Research Study Program

Project Title: The Healthcare Economics of Neurological Disease

Scholarship:

Publications:

Xu M, Seas A, **Kiyani M**, Ji KSY, Bell HN. A Temporal Examination of Calcium Signaling in Cancer from Tumorigenesis, to Immune Evasion, and Metastasis. Cell Biosci 2018;8:25

Presentation/Abstracts:

Kiyani M, Liu B, Charalambous L, Adil SM, Farjat A, Perfect JR, Lad S. The Longitudinal Health Economic Impact of Viral Encephalitis in the United States. Presented at the American Society for Microbiology's (ASM) Microbe Meeting in Atlanta, GA, June 2018.

Clare Parker, Duke Study Away (Singapore) Duke-NUS

Mentor(s): Marcus Ong, MD

Program: Completed Clinical Research Study Program

Project Title: Predicting Hospital Admission at Emergency Department Triage: A Novel Prediction Model

Scholarship: Singapore

Publications:

Submitted:

Parker C, Liu N, Wu S, Shen Y, Lam S, Ong M. Predicting Hospital Admission at Emergency Department

Triage: A Novel Prediction Model.

Parker C, Chong S, Long N, Liu N, Ong M. Identification of Primary-Care Appropriate Head Injuries in Children Under Two.

Presentations/Abstracts:

Parker C, Liu N, Wu S, Shen Y, Lam S, Ong M. Predicting Hospital Admission at Emergency Department Triage: A Novel Prediction Model. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC

Sarah Scharber – Duke Study Away Student (Minnesota)

Mentor(s): Johanna Moore, MD

Program: Completed Clinical Research Training Program

Project Title: Ketamine vs Midazolam for Prehospital Agitation

Scholarship: DIHI Scholarship

Publications:

Submitted:

Cole JB, Klein LR, **Scharber SK**, Driver BE, Moore JC, Miner JR, Arens AM, Olives TO, Nystrom PC, Simpson NS, Ho J. Ketamine versus Midazolam for Prehospital Agitation: A Prospective Study. *Annals of Emergency Medicine*. Near submission

Klein LR, Driver BE, **Scharber SK**, Horton GB, Martel M, Cole JB. Rescue Sedation when Treating Acute Agitation in the Emergency Department with Intramuscular Antipsychotics. *Journal of Emergency Medicine*. Submitted August 2018

Cole JB, Kummer TM, Klein LR, **Scharber SK**, Horton GB, Elm KD, Olives TD. The Use and Effectiveness of Intramuscular Ketamine for Prehospital Agitation in Pediatric Patients. *Pediatric Emergency Care*. Submitted June 2018

Driver BE, **Scharber SK**, Fagerstrom ET, Klein LR, Cole JB, Dhaliwal RD. The Effect of a Clinical Decision Support for Pending Laboratory Results at Emergency Department Discharge. *Journal of Emergency Medicine*. Submitted April 2018

Presentations/Abstracts:

Cole JB, **Scharber SK**, Simpson NS, Klein LR, Olives TD, Nystrom PC, Moore JC, Arens AM, Driver BE, Hornsby T, Ho JD. A Perspective Observational Study of Prehospital Ketamine for Agitation Secondary to Cocaine or Methamphetamine Intoxication. Moderated Poster Presentation. Presented at the American College of Medical Toxicology Annual Scientific Meeting, April 2018. Washington, DC

Scharber SK, Cole JB, Klein LR, Driver B, Olives T. Factors Associated with Intubation and Capnographically Proven Apnea in Patients Treated with Intramuscular Ketamine for Prehospital Agitation. Acad Emerg Med. 2018;25:S. Lightning Oral Presentation, Society for Academic Emergency Medicine. May 2018. Indianapolis, IN

Cole JB, **Scharber SK**, Karl ER, Horton GB, Satpathy R, Driver BE. Push Dose Pressors in the Emergency Department: As Assessment of Adverse Hemodynamic Events, Documentation Errors, and Dosing Errors. Acad Emerg Med. 2018;25:S. Lightning Oral Presentation, Society for Academic Emergency Medicine. May 2018, Indianapolis, IN

Cole JB, **Scharber SK**, Simpson NS, Klein LR, Olives TD, Nystrom PC, Moore JC, Arns AM, Driver BE, Ho JD. A Prospective Study of a Tiered Dosing Strategy of Intramuscular Ketamine for Prehospital Agitation. Acad Emerg Med. 2018;25:S. Lightning Oral Presentation, Society for Academic Emergency Medicine. May 2018, Indianapolis, IN

Cole JB, Kummer TM, Klein LR, **Scharber SK**, Horton GB, Elm KD, Olives TD. The Use and Effectiveness of Intramuscular Ketamine for Prehospital Agitation in Pediatric Patients within an EMS System Based at a Pediatric Level 1 Trauma Center. Acad Emerg Med. 2018;25:S. Poster Presentation, Society for Acad Emerg Med 2018, Indianapolis, IN

Scharber SK, Horton GB, Klein LR, Driver BE, Olives TD, Moore JC, Cole JB. Ketamine versus Midazolam for Prehospital Agitation. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC (Platform Presentation)

Driver BE, **Scharber SK**, Horton GB, Hanson MK, Satpathy R, Simpson NS, Reardon RF. Successful ET Tube Exchange for Laryngeal Tubes in the Emergency Department. Ann Emerg Med. Oct 2018. (abstract #100) Oral power point presentation at the American College of Emergency Physicians Annual Meeting, San Diego, CA.

Abstracts (Non-presenter):

Cole JB, Klein LR, **Scharber SK**, Driver BE, Moore JC, Miner JR, Arens AM, Olives TO, Nystrom PC, Simpson NS, Ho J. Ketamine versus Midazolam for Prehospital Agitation: A Prospective Study. Ann Emerg Med 2018.

Donelan CM, **Scharber S**, Karl E, Dar S, Moore J, Driver B, Caraganis A, Prekker M. Chest Compression Fraction and Ventilation Rate Among Patients with Cardiopulmonary Arrest in an Urban, Academic Emergency Department. Ann Emerg Med 2018.

Moore JC, Grahl M, Marko T, Blythe-Reske A, Lage A, Hedge E, Bancroft-Howard A, **Scharber SK**, Klein LR, Ho J. Implementation of active compression decompression Cardiopulmonary Resuscitation with the Impedance Threshold Device in a Large Urban Prehospital System: A Before and After Study. Acad Emerg Med 2018; 25.

Cole JB, **Scharber SK**, Karl ER, Horton GB, Satpathy R, Driver BE. "Push Dose Pressors" in the Emergency Department: An Assessment of Adverse Hemodynamic Events, Documentation Errors, and Dosing Errors. Acad Emerg Med 2018; 25

Moore JC, Grahl M, Marko T, Blythe-Reske A, Lage A, Hedge E, Bancroft-Howard A, **Scharber SK**, Klein LR, Ho J. Presence of Signs of Perfusion During Cardiopulmonary Resuscitation as Noted by First Responders Strongly Predicts Neurologic Outcome in an Observational Study of Cardiac Arrest. Acad Emerg Med 2018; 25

George Tran – Duke Hematology-Oncology

Mentor(s): Syed Yousuf Zafar, MD

Program: Completed Clinical Research Study Program

Project Title:

- A Randomized, Controlled Trial to Test a Mobile Application to Reduce Cancer Treatment-Related Financial Burden
- Feasibility of cancer clinical trial enrollment goals based on cancer incidence

Miscellaneous:

- Participated in DCRUE panel
- Responsible for enrolling patients in and managing logistics of a 200-patient randomized, controlled trial as part of the project: A Randomized, Controlled Trial to Test a Mobile Application to Reduce Cancer Treatment-Related Financial Burden

Publications:

Tran G, Zafar SY. Financial Toxicity and Implications for Cancer Care in the Era of Molecular and Immune Therapies. Ann Transl Med 2018;6(9):166.

Tran G, Zafar SY. Price of Cancer Care and Its Tax on Quality of Life. J Oncol Pract 2018;14(2):69-71.

Presentations/Abstracts:

Tran G, Harker M, Chiswell K, Unger J, Fleury M, Hirsch B, Miller K, d'Almada P, Tibbs S, Zafar SY. Feasibility of Cancer Clinical Trial Enrollment Goals Based on Cancer Incidence. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC

Tran G, Nicolla J, Friedman F, Samsa G, Ubel P, Pollak K, Zafar SY. A novel, Web-Based Intervention to Reduce Cancer Treatment-Related Financial Distress: A Randomized Controlled Pilot Study. Poster presented at the 42nd annual meeting of the American Society of Preventive Oncology.

Tran G, Manners I, Gagosian B, Nicolla J, Friedman, F., Samsa G, Pollak K., Zafar SY. A Prospective, Pilot Study of a Mobile App to Intervene on Cancer Patients' Financial Burden. Poster presented at the 39th annual meeting and scientific sessions of the Society of Behavioral Medicine

Tran G, Harker M, Chiswell K, Fleury M, Hirsch, B, Unger J, Miller K, d'Almada P, Tibbs S, Zafar S.Y. Feasibility of Cancer Clinical Trial Enrollment Goals Based on Cancer Incidence. Poster presented at the 7th annual Duke Cancer Institute Cancer Control and Population Sciences Poster Fair

Tran G, Harker M, Chiswell K, Fleury M, Hirsch, B, Unger J, Miller K, d'Almada P, Tibbs S, Zafar S.Y. Feasibility of Cancer Clinical Trial Enrollment Goals Based on Cancer Incidence. Poster Presented at the Population Sciences Poster Fair

Tran G, Nicolla J, Friedman F, Samsa G, Ubel P, Pollak K, Zafar SY. A Novel, Web-Based Intervention to Reduce Cancer Treatment-Related Financial Distress: A Randomized Controlled Pilot Study. Poster Presented at the 7th annual Duke Cancer Institute Cancer Control.

Tran G, Nicolla J, Friedman F, Samsa G, Ubel P, Pollak K, Zafar SY. A Novel, Web-Based Intervention to Reduce Cancer Treatment-Related Financial Distress: A Randomized Controlled Pilot Study. Poster Presented at the Population Sciences Poster Fair

Tran G, Manners I, Gagosian B, Nicolla J, Friedman, F, Samsa G, Pollak K, Zafar SY. A Prospective, Pilot Study of a Mobile App to Intervene on Cancer Patients' Financial Burden. Poster Presented at the 7th annual Duke Cancer Institute Cancer Control.

Tran G, Manners I, Gagosian B, Nicolla J, Friedman, F, Samsa G, Pollak K, Zafar SY. A Prospective, Pilot Study of a Mobile App to Intervene on Cancer Patients' Financial Burden. Poster Presented at the Population Sciences Poster Fair

Tran G, Harker M, Chiswell K, Fleury M, Hirsch B, Unger J, Miller K, d'Almada P, Tibbs S, Zafar SY. Comparison of Cancer Incidence to Available Oncology Clinical Trial Slots. Published in American Society of Clinical Oncology Annual Meeting Proceedings supplement to the Journal of Clinical Oncology

Hunter Warwick – Duke Orthopedics

Mentor(s): Richard Chad Mather III, MD, MBA

Program: Completed Clinical Research Study Program

Scholarship: Mary W and Foster G McGaw Scholarship

Medical School Recognition: Duke University School of Medicine Chapter of Alpha Omega Alpha Medical Honor Society Member for Fall 2018

Project Title: Social Incentives and Patient-Reported Outcome Measure Survey Response Rate in the Orthopaedic Population

Publications:

Submitted:

Warwick H, Hutyra C, Politzer C, Francis A, Risoli T, Green C, Verma N, Huettel S, Mather RC. Social Incentives and Patient-Reported Outcome Measure Survey Response Rate in the Orthopaedic Population: A Randomized Control Trial. *Clinical Orthopaedics and Related Research*. Submitted 8/2018.

Warwick H, George A, Seyler T, Jiranek W. Immediate Physical Therapy Following Total Joint Arthroplasty: Barriers and Impact on 30-Day Readmission. *Clinical Orthopaedics and Related Research*. Submitted 8/2018.

Warwick H, O'Donnell J, Mather RC, Jiranek W. Distribution of Non-Arthroplasty Osteoarthritis Costs Prior to Total Knee Arthroplasty. *Journal of Bone and Joint Surgery*. Submitted 8/2018.

Presentations/Abstracts:

Warwick H, Hutyra C, Politzer C, Francis A, Risoli T, Green C, Verma N, Huettel S, Mather R. Social Incentives and Patient-Reported Outcome Measure Survey Response Rate in the Orthopaedic Population: A Randomized Control Trial. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC

Warwick H, George A, Howell C, Seyler T, Jiranek W. Immediate Physical Therapy Following Total Joint Arthroplasty: Barriers and Impact on 30-Day Readmission. Duke Orthopaedics Departmental Research Day and Symposium 2018.

Francis A, Hutyra C, Wahl E, Karas V, Huebner J, Olsen S, Lewis B, Green G, Risoli ER, **Warwick H**, Reuter J, Kraus V, Mather R. Osteoarthritis Biomarkers in Human Synovial Fluid of the Hip Joint. (presented at AOA day by Andrew Francis)

Andrew Yuan – Duke Psychiatry and Behavioral Sciences

Mentor(s): Geraldine Dawson, MD

Program: Completed Clinical Research Study Program

Project Title: Examining the Validity of Computerized Movement Tracking as an Index of Symptom Severity for Autism Clinical Trials

Publications:

Submitted:

Sabatos-DeVito M, Murias M, Dawson G, Howell T, **Yuan A**, Marsan S, Bernier R, Brandt CA, Chawarska K, Dzuira JD, Faja S, Jeste SS, Naples A, Nelson CA, Sugar CA, Shic F, Webb SJ, McPartland JC. Methodological Considerations in the Use of Noldus EthoVision XT Video Tracking of Children with Autism in Multi-Site Studies. *Biological Psychology* - submitted 7/2018

Presentations/Abstracts:

Yuan A, Sabatos-DeVito M, Smith V, Lorenzi J, McVea M, Herold B, Murias M, Dawson G. Examining the Validity of Computerized Movement Tracking as an Index of Symptom Severity for Autism Clinical Trials. Duke University School of Medicine Alpha Omega Alpha Day, August 3, 2018, Durham, NC

Sabatos-DeVito M, Howell, T, **Yuan A**, Rohloff A, Belvin K, Bey A, Troy J, Simmons R, Herold B, Murias M, Dawson G. Automated Video Tracking Biomarkers of Parent-Child Interaction Correlate with Childrens' Autism Symptom Severity. Submitted abstract for (upcoming): 2019 Society for Research in Child Development Biennial Meeting; Mar 21-23; Baltimore, MD

Tingrui Zhao - Duke Nephrology

Mentor(s): Myles Wolf, MD and Blake Cameron, MD

Program: Completed Clinical Research Study Program

Scholarship: Stead Scholarship

Project Title:

- Lysophospholipids in Chronic Kidney Disease-Associated Pruritus
- Analysis of Cost and Attribution of Newly End-Stage-Renal-Disease Patients in Duke Connected Care

Presentations/Abstracts:

Zhao T, Cameron B, Wolf M. Analysis of Cost and Attribution of Newly End-Stage-Renal-Disease Patients in Duke Connected Care. Duke University School of Medicine Alpha Omega Alpha Day, Durham, North Carolina, August 3, 2018